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DISADVANTAGES OF SELLING COTTON IN THE SEED.

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INTRODUCTION.

The practice of selling cotton in the seed, while not as prevalent as in the early days of cotton production, is still preferred by many producers and constitutes an important factor in the marketing of the cotton crop.

In regions where cotton is not grown in sufficient quantities to attract regular buyers, the custom of marketing unginned cotton enables the producer to make a ready-cash sale of any amount of seed cotton that he may bring to the gin. However, in most markets, practically the only advantage accruing to the farmers, as a class, is the saving of the time of men and teams that otherwise would be spent awaiting their turns at the gins and in selling the baled lint cotton.

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[1] This investigation was planned by Wells A. Sherman, Specialist in Market Surveys, and supervised by Fred Taylor, Cotton Technologist. The ginning was done by George E. Gaus, Laboratory Aid, and the samples were graded by David C. Griffith, Investigator in Cotton Marketing, and Robert W. Murray, formerly Assistant in Cotton Marketing.

Note.—This bulletin should be of interest to cotton producers, ginners, and buyers generally.

On the other hand, in some primary markets there is an advantage to the producer who sells baled cotton to the local merchants, as many of them allow the full market price and sometimes a premium in order to collect accounts, to sell goods, and to gain the good will of the farmer. The producer who sells in the seed can not take advantage of such circumstances, as the merchants usually do not buy seed cotton.

The sale of unginned cotton is encouraged by many ginners, who operate in close association with the oil-mill companies.[1] The ginner in buying allows for all the uncertain elements of the business, and in making an offer, aims to secure a profit in addition to his regular ginning charge.

The ginner usually separates his seed cotton into about three grades, but without regard to variety, character, or length of staple—a practice which necessarily results in a mixture of the different grades and the different lengths of staple which are produced in a community. Sooner or later this condition will be discovered by discriminating buyers and can not fail to reflect on the local market to the detriment of the cotton producer.

This method of marketing also has a retarding influence on efforts for the improvement in varieties. It is difficult, if not impossible, for the grower to obtain from the ginner his own seed for planting; and the farmer is encouraged to improve his product with the sole object of increasing the yield of seed cotton per acre. Grade and staple are given so little consideration by the buyer of seed cotton that these qualities frequently are treated with indifference by the grower and little attention is given to improvement in the quality of the fiber. The better cotton, when sold in the seed, brings so small a premium over the lower grades that it does not warrant the extra care necessary to its production, and the grower is thus encouraged to bring to market inferior cotton which often contains an excess of trash, dirt, and moisture.

The Bureau of Crop Estimates of the United States Department of Agriculture in January, 1916, estimated, from reports of their correspondents and agents, the percentages of cotton sold in the seed in the several cotton-producing States. These percentages have been applied to the Census Bureau figures of cotton production for the growth years 1912 to 1915, inclusive, for the purpose of estimating the total number of bales sold in the seed in the several States during these years. Table I is presented to show these estimates.

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[1] *See* Sherman, Wells A., Taylor, Fred, and Brand, Charles J.: Studies of Primary Cotton Market Conditions in Oklahoma. U. S. Department of Agriculture, Bulletin 36. 1913.

TABLE I.—*Estimated percentages of total crop and calculated number of bales of cotton sold in the seed in the several States.*

State.	Percentage.	1915	1914	1913	1912
		Bales.	*Bales.*	*Bales.*	*Bales.*
Virginia	60	10,000	15,000	15,000	15,000
North Carolina	11	81,000	107,000	92,000	100,000
South Carolina	2	23,000	31,000	28,000	24,000
Georgia	2	39,000	54,000	47,000	36,000
Florida	45	25,000	41,000	30,000	26,000
Alabama	4	41,000	69,000	59,000	53,000
Mississippi	3	28,000	37,000	38,000	30,000
Louisiana	4	13,000	18,000	17,000	15,000
Texas	6	184,000	263,000	226,000	279,000
Arkansas	13	103,000	130,000	135,000	100,000
Tennessee	40	118,000	149,000	147,000	107,000
Missouri	90	42,000	71,000	57,000	48,000
Oklahoma	37	230,000	456,000	312,000	372,000
Total		937,000	1,441,000	1,203,000	1,205,000
Percentage of crop		8.5	9.1	8.6	9.0

The high price of cotton seed during the 1915 season probably gave some stimulus to the practice of selling cotton unginned. The estimates given in Table I, therefore, are probably higher than would have been made had the cotton-seed prices been at the level ruling during recent years when production was greater. As the high percentages for 1915 have been applied to the census figures for 1912, 1913, and 1914, the estimates for these years are probably somewhat greater than the actual facts. This is especially true for 1914, when an unusually small quantity was sold in the seed, because much cotton was held by producers on account of the low prices resulting from the European war. The high percentage shown in Florida is because most of the Sea Island crop was sold in the seed. The practice of selling cotton unginned is shown to be most prevalent in regions of scanty production and in the newer cotton-producing sections.

The purpose of this bulletin is to set forth the results of an investigation which was conducted in Oklahoma during the season of 1913–14, in order to obtain reliable information as to the relative advantages and disadvantages accruing to the farmer who sells his unginned cotton directly to the ginner instead of having his product custom-ginned and marketing the seed and the baled lint cotton separately.

METHOD OF INVESTIGATION.

For the purposes of this investigation, nine representative seed-cotton markets were selected, in each of which the best man available for the work was appointed as a representative of the Department of Agriculture to obtain each week several 10-pound samples of seed cotton from loads sold by different farmers. With each sample was secured a record of the seller's name, date and place of sale, and price per hundred pounds. These samples were packed tightly into cloth sacks and mailed to Oklahoma City, where the small sacks were packed into large mail bags and remailed to Washington, D. C. In the following spring this cotton was subjected to a humidifying process, making it approximately equal in moisture content to the average load of commercial seed cotton, after which 8 pounds of each sample were carefully weighed and ginned on a small 10-saw gin. The seed and lint were then weighed separately and the percentages of seed, lint, and trash calculated. In this way samples representing 881 loads of seed cotton were ginned and carefully graded.

This investigation was planned so that the results would reflect as accurately as possible the exact conditions prevailing in the seed-cotton markets. Every precaution was exercised to secure samples and information representative of actual conditions. It is believed that the small 10-saw gin yielded on the higher grades as good a quality of cotton, but, on the lower grades, about one-half grade below that actually produced from the same loads when handled by the modern gins of Oklahoma with their various cleaning attachments. On being discharged from the gin, the seed from these samples was run over a screen and in cleanliness was approximately equal to the average Oklahoma outturn. After ginning, 5 ounces of lint were taken as representative of each load of seed cotton and graded according to the Official Cotton Grades[1] formerly issued by this department.

While these results will show probably a slightly poorer quality of cotton in the lower grades than was obtained by the ginner from the actual loads, all of the samples were ginned with the same equipment, weighed on the same scales, and subjected to the same treatment throughout, and therefore they should furnish comparable data. The poorer quality of lint obtained by the use of the small gin tends to make conservative the comparisons, which are drawn later in this bulletin, between prices paid for lint and prices paid for seed cotton.

OUTTURNS FROM SEED COTTON AT GINS.

When seed cotton reaches the gin it contains varying proportions of lint, seed, and trash.[2] The proportions of lint and seed depend on the variety planted, the soil, and the climatic and cultural conditions under which the cotton is grown. The trash varies in amount with climatic conditions and the care with which the cotton is picked and handled. The process of ginning separates the seed cotton into its three parts—lint, seed, and trash. Some of the trash, however, always remains in both the lint and the seed.

Table II shows the number of samples of each grade obtained from 795 samples of seed cotton representing as many loads. Eightysix samples, which were classed as "sandy" or "dusty," have been omitted from this table, but all other samples collected have been included. The percentages of lint, seed, and trash shown are the average results from the samples yielding each grade. In commercial practice, the reported lint outturn includes an increased weight on account of bagging and ties. Therefore, these lint percentages have been increased proportionately to make due allowance for such gain in weight.

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[1] These grades were superseded on Dec. 15, 1914, by the Official Cotton Standards of the United States.

[2] The word "trash," as used throughout this bulletin, includes all foreign matter, such as leaf, hulls, dirt, etc.

TABLE II.—*Average percentages, according to grade, of lint, seed, and trash found in seed cotton.*

Grade.	Number of loads sampled.	Percentages of—		
		Lint.[1]	Seed.	Trash.
Below Good Ordinary	41	30.38	62.78	8.18
Good Ordinary	47	30.86	63.51	6.99
Strict Good Ordinary	81	31.40	64.69	5.29
Low Middling	138	31.53	65.13	4.73
Strict Low Middling	195	31.55	65.02	4.82
Middling	156	32.03	65.65	3.73
Strict Middling	75	31.67	66.22	3.50
Good Middling	49	31.34	67.16	2.88
Strict Good Middling	13	31.20	66.94	3.23
Summary	795	31.52	65.20	4.67

The average lint outturn of these 795 samples is shown as 31.52 per cent and the average of the 881 samples collected, including those classed as "dusty" or "sandy," was found to be 31.48 per cent. The average seed and trash outturns from the 795 samples in Table II are shown as 65.20 per cent and 4.67 per cent, respectively, and the averages of the 881 samples were 64.7 per cent and 5.2 per cent, respectively. The commercial outturn was reported on 38 of these samples from Coyle, Okla., and averaged 31.79 per cent, as against the 10-saw gin outturn of 31.52 per cent from the same samples. It may be concluded, therefore, that the average lint outturn, including tare during the 1913–14 season for the districts in Oklahoma covered by this survey, was approximately 31.5 per cent.

As the trash content is one of the determining factors in judging the value of lint cotton, it will be seen that the percentages of trash as given do not fully cover the trash content of the seed cotton, for much trash remains in the lint in the lower grades, the amount gradually decreasing until, in the higher grades, comparatively little is found. Therefore, it is evident that as the grade improves, the proportions of lint and seed increase and the proportion of trash decreases.

From Table III it is apparent that the lint, seed, and trash contents of seed cotton have wide extremes in each of the different markets. The minimum ranges in lint percentages shown are for the markets from which a comparatively small number of samples were collected. If a large number of samples had been obtained in all markets, it is evident that the range of variation would have been found to be even greater than here given.

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[1] In this and following tables, the percentages include the actual lint outturn plus an allowance for bagging and ties.

TABLE III.—*Extreme variations in lint, seed, and trash percentages from samples obtained in specified towns in Oklahoma.*

Market.	Number of loads sampled.	Lint percentage.			Seed percentage.			Trash percentage.		
		High.	Low.	Range of variation.	High.	Low.	Range of variation.	High.	Low.	Range of variation.
		P. cent.	*P. cent.*	*P. cent.*	*P. cent.*	*P. cent.*	*P. cent.*	*P. cent.*	*P. cent.*	*P. cent.*
Anadarko	21	33.9	27.3	6.6	66.5	51.9	14.6	21.9	3.0	18.9
Coyle	38	36.2	29.6	6.6	70.6	53.8	16.8	15.7	.9	14.8
Crescent	85	38.3	27.0	11.3	69.5	52.3	17.2	20.6	.2	20.4
Crowder	55	38.6	27.2	11.4	66.9	58.3	8.6	11.9	.4	11.5
Haskell	119	36.4	25.7	10.7	71.4	61.2	10.2	14.2	.9	13.3
Kingfisher	143	36.3	24.3	12.0	72.3	48.1	24.2	23.2	.7	22.5
Shawnee	202	38.4	25.1	13.3	71.9	52.8	19.1	17.0	.8	16.2
Tahlequah	100	37.0	26.5	10.5	69.7	44.8	24.9	25.4	.9	24.5
Weleetka	118	37.4	29.4	8.0	70.2	58.6	11.6	10.9	1.1	9.8
Oklahoma	881	38.6	24.3	14.3	72.3	44.8	27.5	25.4	.2	25.2

CONVERSION OF SEED-COTTON PRICE TO THE EQUIVALENT LINT-COTTON PRICE.

For the purpose of making a comparison between the prices obtained for the lint content of the different loads and a further comparison of the prices for seed cotton with prices obtained for lint, the price paid for seed cotton has been converted into its equivalent price per pound of baled lint cotton. The method of determining this price may be illustrated thus:

On September 13, 1913, a load of seed cotton was sold in Shawnee at $4 per 100 pounds, the outturns of which were 30 per cent lint, 68 per cent seed, and 2 per cent trash. Allowing the prevailing price of $20 per ton or 1 cent per pound for the seed, the 30 pounds of lint in each hundred pounds of seed cotton brought $4, less the value of the seed, 68 cents, or $3.32. As it requires about 22 pounds of bagging and ties to cover 478 pounds of lint, 0.046 of a pound of bagging and ties is required to wrap each pound of cotton, and it would take 1.38 pounds of tare to bale these 30 pounds of lint. This tare would bring the same price as the lint, making the selling weight of lint and tare equal to 31.38 pounds. The ginning and baling charge of $3.50 per bale, or 70 cents per hundred pounds, is figured on the gross weight. The 31.38 pounds gross weight of cotton would cost for ginning and baling at the rate of 70 cents per hundred pounds, or 22 cents, which added to $3.32, the original cost of the 30 pounds of lint, gives $3.54 as the total cost to the ginner of 31.38 pounds of baled lint, or 11.28 cents per pound. Therefore, in this particular case, it may be considered that the ginner paid to the farmer for the cotton an equivalent of 11.28 cents per pound for the bale. Such prices are hereafter referred to as the "equivalent lint prices."

ELEMENTS THAT DETERMINE THE PRICE OF SEED COTTON.

The wide variations in the percentages of seed, lint, and trash as brought out by Table III and the inability of the ginner or producer to determine accurately these proportions or the quality of the lint or seed before the cotton is ginned, make it impossible for the ginner to figure a just price to be paid for each load, and the best he can do under the circumstances is to consider the current lint and seed prices and to take the average lint, seed, and trash contents of his community as a basis for reaching the price to be paid for the unginned cotton. This condition has resulted in dealing on a system of averages, and the ginner often determines on a certain price which he offers for all seed cotton with little regard for quality. However, if a superficial examination of the load shows it to be much worse than the average in trash or moisture content, a lower price is offered. In fixing this price the buyer is naturally careful to guard against any losses that may be incurred on account of the uncertainties involved and to figure safely his own profit. An examination of the records shows many cases where, in the same market, on the same day, the same price per hundred pounds was paid for all unginned cotton, with apparently an utter disregard for quality, the ginner apparently expecting to overcome any losses on the poorer loads by gains on the better ones. In nearly all collections of samples made during this survey the range in price paid for seed cotton on any one day was comparatively small, and many instances are shown where the load containing the best lint sold for a lower comparative price than did the load which yielded the poorest lint.

Tables IV and V are presented to bring out inconsistencies with respect to quality between equivalent lint prices resulting from a fixed seed-cotton price in a given market. Detailed statements are given of two collections of samples of seed cotton, each load of which was grown and sold by a different producer. The cotton in the first lot, represented by Table IV, was sold at $4.50 per 100 pounds, in Tahlequah, on October 2, and each load of the second lot, represented by Table V, at $4 per 100 pounds, in Anadarko, on November 10, 1913.

In Table IV, the quality ranges from Strict Low Middling light tinged to Good Middling; the lint outturn varies 6.8 per cent; the seed outturn, 6.4 per cent; the trash outturn, 2.1 per cent; and the equivalent lint price, 2.14 cents per pound; yet each of these 10 loads brought the producers $4.50 per 100 pounds. In Table V, the quality ranges from below Good Ordinary to Strict Low Middling;

the lint outturn varies 4.4 per cent; the seed outturn, 11.6 per cent; the trash outturn, 12.9 per cent; and the equivalent lint price, 1.64 cents per pound; yet these loads brought uniformly $4 per 100 pounds.

INCONSISTENCIES IN THE EQUIVALENT LINT PRICES[1] RESULTING FROM A FIXED SEED-COTTON PRICE.

TABLE IV.—*Seed cotton sold at $4.50 per 100 pounds on Oct. 2, 1913.*[2]

Grade.	Percentage of—			Equivalent lint price per pound.
	Lint.	Seed.	Trash.	
One load of—	*Per cent.*	*Per cent.*	*Per cent.*	*Cents.*
S. L. M. light tinged	31.0	67.2	3.2	13.07
L. M.	30.6	68.4	2.3	13.15
L. M.	31.8	66.4	3.2	12.76
S. L. M.	32.3	66.4	2.7	12.57
S. L. M.	30.2	69.7	1.4	13.28
S. L. M.	34.5	65.6	1.4	11.84
M.	37.0	63.3	1.3	11.14
M.	32.7	67.6	1.1	12.38
S. M.	34.5	65.8	1.2	11.83
G. M.	32.4	67.0	2.0	12.51

TABLE V.—*Seed cotton sold at $4 per 100 pounds on Nov. 10, 1913.*[2]

Grade.	Percentage of—			Equivalent lint price per pound.
	Lint.	Seed.	Trash.	
One load of—	*Per cent.*	*Per cent.*	*Per cent.*	*Cents.*
O.	29.2	56.3	15.8	12.48
S. G. O.	30.4	66.5	4.4	11.66
S. G. O.	29.6	54.9	16.8	12.36
L. M.	30.6	59.3	11.4	11.82
L. M.	33.1	58.7	9.7	11.03
S. L. M. spotted	32.5	60.5	8.4	11.14
S. L. M. spotted	32.3	63.5	5.6	11.11
S. L. M. spotted	32.4	65.1	3.9	11.03
S. L. M.	33.6	59.6	8.3	10.84
S. L. M.	33.1	62.7	5.7	10.90

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[1] For the method of determining "equivalent lint prices" see page 6.

[2] In these and following tables the initials of the different grades have been used. See Table II for full-grade terms. "O," meaning Ordinary, has been used to denote cotton which was below Good Ordinary in quality.

A mere glance at these tables will show that wide variations in qualities and outturns of seed cotton exist in the same market on the same day. These variations result in marked inconsistencies in equivalent lint prices when a uniform price is paid for seed cotton regardless of its quality. In Table IV, a Strict Low Middling and a Low Middling brought the two highest equivalent lint prices and a Middling and a Strict Middling brought the two lowest prices, while a Good Middling, the best bale, brought just above the average. In Table V, the seed cotton producing the lowest grade and lowest lint outturn brought for its lint content more per pound than any other load, while the two best loads brought the two lowest equivalent lint prices. The load which produced a bale below Good Ordinary in grade brought an equivalent of 12.48 cents and the Strict Low Middling 10.84 cents, a difference of 1.64 cents per pound, or $8.20 per bale. According to New Orleans spot quotations on that day, the Strict Low Middling bale was worth 2.44 cents per pound more than the other bale, but brought 1.64 cents less, making a total discrepancy of 4.08 cents per pound, or $20.40 per bale.

Since only 10 loads were sampled in each of these collections, it is unlikely that the widest ranges of grades, outturns, or equivalent lint prices which actually occurred are disclosed by the tables presented. Gross injustices can be expected in any market at any time when the same price is paid for practically all unginned cotton regardless of its quality and its percentages of seed, lint, and trash. The custom of averaging seed-cotton prices results in undue hardships on farmers who market carefully handled cotton from varieties producing superior lint and in many cases results in a direct premium to farmers who sell inferior seed cotton.

VARIATIONS IN PRICES OF IDENTICAL GRADE OF LINT COTTON WHEN SOLD UNGINNED.

The custom of selling seed cotton resulted in wide variations between the prices received for the same quality of lint cotton in the same market during the same week, and Table VI has been prepared to show these differences. Such loads as produced below Good Ordinary, sandy, or dusty cotton have been excluded, but the comparisons include all grades and all of the localities from which seed-cotton samples were obtained. Only such variations as exceeded $10 per 500-pound bale have been given.

TABLE VI.—*Difference in prices paid for lint of a given grade when sold in the seed in the same market during the same week.*

Market.	Grade.	Week ending—	Number of loads.	Equivalent lint price per pound.			Estimated difference in price between bales.
				Highest.	Lowest.	Difference.	
				Cents.	*Cents.*	*Cents.*	
Kingfisher	G. O	Nov. 22	2	9.65	4.44	5.21	$26.05
Shawnee	G. O	Nov. 1	5	11.53	8.71	2.82	14.10
Tahlequah	G. O	Dec. 27	3	9.32	4.98	4.34	21.70
Weleetka	G. O	Dec. 20	2	7.41	5.18	2.23	11.15
Do	G. O	Jan. 17	3	7.71	5.19	2.52	12.60
Anadarko	L. M	Nov. 22	4	11.49	7.76	3.73	18.65
Kingfisher	L. M	Nov. 1	2	10.70	8.56	2.14	10.70
Shawnee	L. M	Dec. 6	2	8.93	4.44	4.49	22.45
Crowder	L. M. spotted	Dec. 27	3	11.28	7.91	3.37	16.85
Crescent	S. L. M	Oct. 25	5	13.23	10.15	3.08	15.40
Crowder	S. L. M	Dec. 6	2	11.72	9.28	2.44	12.20
Haskell	S. L. M	Nov. 15	4	14.47	12.22	2.25	11.25
Kingfisher	S. L. M	Oct. 25	4	11.05	8.89	2.16	10.80
Shawnee	S. L. M	Oct. 11	3	11.27	8.18	3.09	15.45
Crowder	S. L. M. spotted	Dec. 13	3	10.08	8.05	2.03	10.15
Kingfisher	M	Oct. 11	3	13.55	11.31	2.24	11.20
Weleetka	M	Nov. 15	3	10.95	8.79	2.16	10.80
Kingfisher	S. M	Oct. 11	7	15.56	10.61	4.95	24.75
Do	S. M	Oct. 18	5	11.07	9.01	2.06	10.30
Shawnee	S. M	Sept. 13	9	14.18	10.82	3.36	16.80
Do	S. M	Oct. 4	2	12.76	10.69	2.07	10.35
Do	S. M	Oct. 25	2	12.68	10.34	2.34	11.70
Do	G. M	Sept. 13	7	12.75	10.57	2.18	10.90
Do	G. M	Sept. 20	6	12.72	8.65	4.07	20.35
Kingfisher	S. G. M	Oct. 18	2	11.59	9.49	2.10	10.50

These data furnish comparisons between loads of seed cotton yielding identical quality of lint, which were sold in the same market during the same week. One comparison showed a price variation between bales of $26.05; 4 showed variations of from $20 to $25; 5 from $15 to $20; and 15 from $10 to $15. The maximum variation shown is 5.21 cents per pound between two Good Ordinary loads sold in Kingfisher during the week of November 22. By comparing the price of 9.65 cents obtained for one bale with the port quotations for this grade, and allowing for freight and other charges incident to delivery, it appears that even the higher priced bale was not overvalued. It follows, therefore, that the seller of the lower priced bale received for the lint content of his load at least $26.05 less than was his just due according to spot quotations at New Orleans.

When it is considered that this survey extended over a period of nearly 4½ months and covered 9 different markets, but that an aggregate of only 881 loads was sampled and that the maximum collection in any one market per week was only 20 samples, it is apparent that but a small number of samples would fall on the same grade during the same week in the same market. In Table VI only 4 cases are shown where the number of comparable bales is more than 5. It may be assumed, therefore, that these samples in most cases do not represent the widest variations in the seed-cotton markets, and that in many instances the variations in equivalent lint prices exceed $10 per load for seed cotton containing lint of equal commercial value.

PRICES RECEIVED FOR THE LOWEST AND HIGHEST GRADE BALES IN THE SAME MARKET DURING THE SAME WEEK.

In 40 of the 84 collections made during this survey, the load containing the bale of lowest quality brought more for its lint content than did the load containing the bale of highest quality. Table VII is presented to bring out these 40 comparisons. The number of loads sampled and the lowest and highest grade bales produced from the loads of each collection, with their respective equivalent lint prices, are shown.

Table VII shows that in Anadarko a bale below Good Ordinary in grade brought 12.48 cents against 10.87 cents for a Strict Low Middling bale. In Coyle, two Low Middling bales averaged 13.73 cents against a Strict Good Middling 12.69 cents. In Crescent, a bale below Good Ordinary brought 9 cents against a Strict Low Middling one at 8.57 cents. In Crowder, a Good Ordinary bale brought 12.16 cents, while a Low Middling spotted bale brought 10.50 cents per pound.

TABLE VII.—*Comparisons between prices paid for the lowest and highest grade loads in the same market during the same week.*

Market.	Week ending—	Number of loads sampled.	Lowest grade bale.		Highest grade bale.	
			Grade.	Equivalent lint price per pound.	Grade.	Equivalent lint price per pound.
				Cents.		*Cents.*
Anadarko	Nov. 15	10	O	12.48	S. L. M.[1]	10.87
Do	Nov. 22	11	S. L. M. sandy[1]	11.05	M	9.38
Coyle	Oct. 4	20	L. M.[1]	13.73	S. G. M	12.69
Crescent	Nov. 8	3	L. M. sandy	11.81	M. spotted	11.24
Do	Nov. 29	11	O	9.00	S. L. M	8.57
Crowder	do	3	G. O	12.16	L. M. spotted	10.50
Do	Dec. 20	9	S. G. O	9.40	S. M. blue	8.29
Haskell	Sept 20	9	S. L. M.[1]	13.13	S. M.[1]	12.68
Do	Sept. 27	10	L. M	13.20	G. M.[1]	13.19
Do	Oct. 4	11	S. G. O	13.20	S. G. M	12.54
Do	Oct. 11	8	S. G. O.[1]	13.72	S. M.[1]	12.85
Do	Oct. 18	10	G. O	13.31	S. M	12.84
Do	Nov. 8	9	O	13.48	G. M. light tinged.	11.84
Do	Nov. 29	10	G. O	11.09	M	9.48
Do	Dec. 6	8	O.[1]	12.03	S. M	10.33
Do	Dec. 13	6	S. G. O. dusty	8.34	G. M. light tinged.	5.86
Kingfisher	Sept. 20	5	M. sandy	11.85	G. M	11.14
Do	Sept. 27	6	S. L. M	12.44	G. M	11.49
Do	Oct. 11	19	S. G. O	13.38	S. G. M.[1]	12.89
Do	Oct. 25	14	S. L. M.[1]	10.10	S. M	10.05
Do	Nov. 1	14	O	11.49	S. M	10.59
Do	Nov. 8	11	O	10.10	S. G. M	9.62
Do	Nov. 22	9	O	8.52	S. M	7.75
Do	Dec. 6	8	O	8.37	G. M.[1]	8.02
Shawnee	Sept. 13	20	M	11.28	S. G. M.[1]	10.56
Do	Sept. 27	11	L. M.[1]	12.53	G. M.[1]	11.91
Do	Oct. 25	20	O.[1]	10.64	G. M	10.45
Do	Nov. 22	10	S. G. O.[1]	9.18	S. L. M. off colored[1]	8.71
Tahlequah	Oct. 4	10	L. M.[1]	12.96	G. M	12.51
Do	Oct. 25	9	S. G. O	13.96	M.[1]	10.84
Do	Nov. 1	10	S. G. O. dusty	12.53	S. L. M. spotted	11.86
Do	Nov. 15	10	G. O	11.21	M.[1]	11.01
Do	Nov. 22	10	S. G. O.[1]	10.58	G. M. spotted	9.89
Do	Dec. 13	11	O	9.10	M	7.85
Do	Dec. 20	9	O	7.03	S. L. M. spotted	6.38
Do	Jan. 3	6	O.[1]	6.87	L. M	5.81
Weleetka	Nov. 1	19	S. G. O.[1]	11.44	G. M	10.13
Do	Nov. 15	13	S. G. O.[1]	9.79	G. M. spotted	9.78
Do	Dec. 27	6	O.[1]	4.49	S. G. O.[1]	3.94
Do	Jan. 17	9	O.[1]	5.68	S. L. M. spotted	4.97

[1] Average equivalent lint price of 2 or more bales of the same grade is given.

Of 13 comparisons made in Haskell, 9 are shown where the lowest quality bale brought a higher price than the highest quality bale. A Strict Good Ordinary brought 13.20 cents, while a Strict Good Middling brought 12.54 cents; and two bales below Good Ordinary averaged 12.03 cents against one grading Strict Middling at 10.33 cents per pound.

In Kingfisher, 13 comparisons showed 8 cases where the lowest quality bale brought a higher price than the highest quality bale. A Strict Good Ordinary brought 13.38 cents, while two Strict Good Middling bales averaged 12.89 cents; and a bale below Good Ordinary in grade brought 10.10 cents, against a Strict Good Middling at 9.62 cents per pound.

In Tahlequah, 11 collections were made, 8 of which showed the lowest grade bale had sold for more than the highest bale. A Strict Good Ordinary brought 13.96 cents against two Middling bales which averaged 10.84 cents; and a bale below Good Ordinary 9.10 cents against a Middling 7.85 cents per pound.

Of 12 comparisons made in Weleetka, 4 showed the poorest bale to have brought more per pound than did the best bale. Two Strict Good Ordinary bales averaged 11.44 cents, against a Good Middling 10.13 cents per pound.

A further analysis of the data concerning these 84 collections showed that in 29 comparisons the lowest equivalent lint price represented a bale of higher quality than the one actually selling at the highest price, and in 14 additional cases the quality of the bales represented by the lowest and highest prices was identical.

It is quite evident from these facts that the selling of unginned cotton in actual practice is attended by great uncertainty and frequently with much injustice to those who produce the higher grades of cotton.

IRREGULARITIES IN PRICES RECEIVED FOR THE LINT CONTENT OF SEED COTTON.

Table VIII is presented to show with respect to grade the inconsistencies between equivalent lint prices of cotton sold unginned in the same market during the same week. Only such comparisons are included in this table as show discrepancies in price over $15 per bale.

This investigation afforded data from which 84 comparisons could be made between loads sold during the same week in the same market. The extreme discrepancies in price in 34 cases were more than $15 per bale; in 32 cases were from $10 to $15; and in 18 instances were under $10. In these comparisons ranges from 95 cents to $30.35 per bale occurred. The widest variation occurred in Haskell during the week of November 8, when, of 9 loads sampled, a bale below Good Ordinary brought an equivalent of 13.48 cents, while a Strict Good Ordinary brought an equivalent of only 9.29 cents per pound. The lower grade bale brought 4.19 cents more per pound, while it was worth 1.88 cents per pound less, making a total discrepancy of 6.07 cents per pound or $30.35 between the bales. The least variation found was 95 cents per bale in Crescent on November 8, when only 2 loads were sampled.

The most noteworthy facts brought out by this table are the wide discrepancies that occurred between the amounts secured by different farmers for loads of seed cotton, the frequency with which low-grade bales sold for more than did higher grades, and the wide variations between prices.

TABLE VIII.—*Comparison between the lowest and highest prices, quality considered, paid in the same market within the same week for cotton when sold in the seed, showing variations per pound and per bale.*

Market.	Dates of sale.	Number of loads sampled.	Grade of highest priced bale.	Highest price per pound.	Grade of lowest priced bale.	Lowest price per pound.	Actual difference paid per pound.	Difference in value per pound.[1]	Total or net discrepancy per pound.	Estimated discrepancy in price per bale.
				Cents.		Cents.	Cents.	Cents.	Cents.	
Anadarko	Nov. 10	10	O	12.48	S. L. M	10.84	1.64	2.44	4.08	$20.40
Do	Nov. 17[2], 18	11	L. M	11.49	L. M	7.76	3.73		3.73	18.65
Crescent	Oct. 21[2], 24	15	S. G. M	14.41	S. L. M	10.15	4.26	.81	[3] 3.45	17.25
Do	Dec. 10[2], 11	10	O	8.27	G. O	5.12	3.15	1.63	4.78	23.90
Crowder	Dec. 27	6	L. M. spotted	11.28	L. M	7.77	3.51	.38	3.89	19.45
Do	Jan. 19	6	S. G. O	9.21	L. M. light stained	5.65	3.56	.19	[3] 3.37	16.85
Haskell	Oct. 13, 14[2]	10	G. O	13.31	M	11.40	1.91	1.25	3.16	15.80
Do	Nov. 4, 5[2]	9	O	13.48	S. G. O	9.29	4.19	1.88	6.07	30.35
Do	Nov. 24	10	S. L. M. spotted	13.15	S. G. O	8.31	4.84	.69	[3] 4.15	20.75
Do	Dec. 2[2], 3	8	O	12.56	S. M	10.33	2.23	3.19	5.42	27.10
Do	Dec. 10[2], 13	6	S. L. M. spotted	10.71	G. M. light tinged	5.86	4.85	.50	[3] 5.35	26.75
Kingfisher	Oct. 6[2], 11	19	S. M	15.56	S. M	10.61	4.95	.25	[3] 4.70	23.50
Do	Nov. 20[2], 22	9	G. O	9.65	G. O	4.44	5.21	.06	[3] 5.15	25.75
Do	Dec. 6	8	O	8.37	G. M	7.55	.82	3.44	4.26	21.30
Shawnee	Sept. 13	20	S. M	14.18	S. G. M	9.66	4.52	.31	4.83	24.15
Do	Sept. 16, 18[2]	19	G. M	12.72	G. M	8.65	4.07	.13	[3] 3.94	19.70
Do	Oct. 3	18	G. O	13.50	S. M	10.69	2.81	1.13	3.94	19.70
Do	Oct. 11	18	S. G. O	11.17	S. L. M	8.18	2.99	.56	3.55	17.75
Do	Oct. 30, 31[2]	20	O	11.09	G. O	8.71	2.38	1.63	4.01	20.05
Do	Nov. 14, 15[2]	10	O	9.27	L. M	8.07	1.20	2.31	3.51	17.55
Do	Nov. 20[2], 22	10	S. G. O	9.50	L. M. off colored	6.11	3.39	.19	3.58	17.90
Do	Dec. 1[2], 5	11	S. L. M. spotted	9.36	L. M	4.44	4.92	.13	[3] 4.79	23.95
Tahlequah	Oct. 23	9	S. G. O	13.96	M	10.69	3.27	.81	4.08	20.40
Do	Dec. 13	11	O	9.10	L. M. spotted	6.55	2.55	1.94	4.49	22.45
Do	Dec. 20	9	O	7.03	M. stained	4.78	2.25	1.81	4.06	20.30
Do	Dec. 27	6	G. O	9.32	G. O	4.98	4.34		4.34	21.70
Do	Jan. 3	6	O	7.20	L. M	5.81	1.39	2.56	3.95	19.75
Weleetka	Oct. 29[2], 30	19	S. L. M	13.44	G. M	10.13	3.31	.63	3.94	19.70
Do	Nov. 19	9	S. G. O	10.80	S. L. M	8.44	2.36	.81	3.17	15.85
Do	Nov. 26, 27[2]	10	S. L. M. light stained.	10.73	M	8.38	2.35	1.25	3.60	18.00
Do	Dec. 3[2], 6	9	G. O	10.05	S. L. M. spotted	7.55	2.50	.94	3.44	17.20
Do	Dec. 22[2], 27	6	O	5.68	S. G. O	3.42	2.26	1.94	4.20	21.00
Do	Dec. 29[2], 30	2	L. M. stained	6.51	G. O	3.28	3.23	.69	3.92	19.60
Do	Jan. 14	9	G. O	7.71	S. L. M. spotted	4.97	2.74	1.13	3.87	19.35

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[1] On the basis of spot quotations at New Orleans.

[2] Date of sale of highest comparative priced bale.

[3] Cases where higher valued bale brought highest comparative price and net differences are shown; all others lower valued bale brought highest comparative price and total differences are shown.

PRICES RECEIVED FOR LINT COTTON COMPARED WITH EQUIVALENT LINT PRICES OF SEED COTTON.

PRICES IN SAME MARKET DURING SAME WEEK.

During the progress of this investigation, an additional survey was made of conditions attending the sale of lint cotton, which resulted in the accumulation of data on the sale of 4,533 bales, which may be considered fairly representative of the entire season and the entire cotton area of Oklahoma. There were 14 instances in which both lint and seed-cotton samples were collected in the same market during the same week. Table IX is presented to show these 14 collections and to compare the prices obtained in marketing cotton by the two methods.

The differences in average selling price per pound have been reached by subtracting the average equivalent lint prices from the average prices of lint cotton without regard to grade. The differences in value on account of grade have been figured on the basis of New Orleans spot quotations. In 3 comparisons, the average value of the lint sold in the seed was found to exceed the average value of the lint sold in the bale, but in all other cases the average value of that sold in the bale was greater. A weighted average of the differences in average value shows that the cotton represented by the lint collections was worth 15 points more than that represented by the seed-cotton collections. If the small gin had turned out as good a quality as that produced by commercial gins, it is probable that the cotton sold in the seed would have appeared approximately equal in value to that sold in the bale, and this difference of 15 points would not have appeared.

Table IX.—*Comparison between prices received for ginned and unginned cotton in the same market during the same week.*

Week ending—	Number of bales sampled.	Average lint price per pound.	Number of loads sampled.	Average equivalent lint price per pound.	Difference in average selling price per pound.	Difference in average value per pound.	Estimated loss—	
							Per pound.	Per bale.
		Cents.		*Cents.*	*Cents.*	*Cents.*	*Cents.*	
Sept. 13	50	12.79	20	11.67	1.12	0.03	1.09	$5.45
Sept. 20	50	12.95	19	10.75	2.20	[1].06	2.26	11.30
Sept. 27	49	13.22	11	12.22	1.00	.02	.98	4.90
Oct. 4	49	13.41	18	12.34	1.07	.18	.89	4.45
Oct. 11	50	12.66	18	10.12	2.54	.32	2.22	11.10
Oct. 18	60	12.04	18	10.67	1.37	.06	1.31	6.55
Oct. 25	44	12.05	20	10.80	1.25	.11	1.14	5.70
Nov. 1	62	12.24	20	10.54	1.70	.48	1.22	6.10
Nov. 8	37	11.71	10	10.22	1.49	[1].11	1.60	8.00
Nov. 15	48	11.21	10	8.67	2.54	.31	2.23	11.15
Nov. 15	47	11.35	10	11.44	[1].09	.62	[2].71	[2]3.55
Nov. 22	32	11.86	11	9.47	2.39	.46	1.93	9.65
Nov. 22	83	10.67	10	8.50	2.17	.08	2.09	10.45
Nov. 29	22	10.76	10	7.61	3.15	[1].39	3.54	17.70
Summary	683	12.07	205	10.56	[3]1.67	.15	1.52	7.59

[1] Indicates particular figures in favor of seed cotton; all others in favor of lint cotton.

[2] Indicates a gain; all other extensions represent losses.

[3] The summarized difference in average selling price has been reached by weighting by the number of loads.

It will be noticed that, of the 14 comparisons, 1 shows a gain of $3.55 per bale by selling the cotton unginned and 13 show a loss ranging from $4.45 to $17.70. The 205 samples of seed cotton show an average loss of 1.52 cents per pound of lint or $7.59 per bale.

A comparison between primary prices of individual bales and equivalent lint prices of individual loads in the same market during the same week showed that wide price variations occurred. One bale of Middling sold for 13.25 cents against one load yielding the same grade at an equivalent lint price of 9.98 cents. One bale of Low Middling sold for 12 cents, while one load of the same grade brought an equivalent of 7.56 cents. A Low Middling bale sold for 12.30 cents in contrast with a Strict Low Middling load at 8.18 cents. Three bales of Strict Low Middling sold at an average of 12.25 cents, while three loads of the same grade brought an average equivalent of 9.93 cents.

PRICES FOR EACH GRADE DURING SEASON THROUGHOUT STATE.

Table X is presented in order to compare for the entire season the average prices received for the several grades of cotton when sold in the bale with the average prices received when sold in the seed. Only the white grades have been included in this comparison. The custom in the Oklahoma primary markets of classing no cotton above Good Middling has been followed and all Good Middling and better samples have been grouped together as Good Middling.

TABLE X.—*Comparison by grades, between prices secured for cotton when sold unginned and when sold in the bale, during the entire season in the markets represented.*

Grade.	Cotton sold in bales.		Cotton sold in seed.			Estimated loss by selling unginned.	
	Number of bales sampled.	Price per pound.	Number of loads sampled.	Price of seed cotton.	Equivalent lint price.	Per pound.	Per bale.
		Cents.				*Cents.*	
G. O	152	9.47	46	$3.04	$8.56	0.91	$4.55
S. G. O	364	10.39	72	3.48	9.74	.65	3.25
L. M	504	11.25	108	3.84	10.90	.35	1.75
S. L. M	665	11.99	141	3.96	11.27	.72	3.60
M	661	12.63	111	4.01	11.25	1.38	6.90
S. M	314	13.01	57	4.04	11.53	1.48	7.40
G. M	342	13.04	51	4.03	11.52	1.52	7.60

It will be observed that the prices of cotton sold both before and after ginning increased in a general way as the grade improved. This was due in a large measure to the fact that most of the high grade bales were sold while the prices were relatively high and most of the low grade bales were sold while the prices were relatively low. However, as the proportion of the different grades of cotton sold in the seed should vary throughout the season, as they do in cotton sold in the bale, the figures are comparable for the entire season.

The losses by selling in the seed range from 35 points, or $1.75 per bale for Low Middling, to 152 points, or $7.60 per bale for Good Middling. Selling the cotton unginned caused an aggregate loss of $2,715.20 on the 586 loads here represented, or an average loss of $4.63 for each bale. Thus it is shown that the producer who sells his cotton unginned lost on each grade, and that the losses on the higher grades exceeded those on the lower grades.

PRICES FOR EACH MONTH DURING SEASON THROUGHOUT STATE.

Table XI has been prepared in order to compare the prices obtained for cotton by the two systems of marketing, during each month and throughout the season. Twenty-nine lint samples of extra staple have been omitted from this table, but the remaining 4,504 bales and the 881 loads sampled have been considered. The number of samples of both lint and seed cotton for each month, the average prices secured for lint and seed cotton, the average equivalent lint prices and the estimated losses per pound and per bale are shown.

TABLE XI.—*Comparison, by months, between prices secured for cotton when sold unginned and when sold in the bale during the entire season in the markets represented.*

Month.	Cotton sold in bales.		Cotton sold in seed.			Estimated loss by selling unginned.	
	Number of bales sampled.	Average price per pound.	Number of loads sampled.	Average price per 100 pounds.	Average equivalent lint price per pound.	Per pound.	Per bale.
		Cents.			*Cents.*	*Cents.*	
September	585	13.12	104	$4.03	11.62	1.50	$7.50
October	1,873	12.46	315	4.09	11.69	.77	3.85
November	1,607	10.95	253	3.55	9.94	1.01	5.05
December	333	9.74	182	2.84	7.69	2.05	10.25
January	106	8.16	27	2.62	6.68	1.48	7.40
Summary	4,504	11.70	881	3.62	10.20	[1] 1.21	[1] 6.06

[1] These figures have been reached by weighting the losses by the number of loads sampled in each month.

A loss is shown for each month ranging from an average of $3.85 per bale in October to $10.25 per bale in December. The average baled lint price for the entire season is shown as 11.70 cents and the average equivalent lint price for the entire season as 10.20 cents. There occurred an average loss of 1.21 cents per pound or $6.06 per bale.

A STUDY OF CONDITIONS IN A SPECIFIC LOCALITY.

In order to determine the prices paid for seed cotton and to compare the prices paid for Triumph cotton with the prices paid for other varieties, the town of Crowder was chosen, as activities in that locality had resulted in a large percentage of production of Mebane's Triumph cotton. Each week an equal number of samples of Triumph and other varieties of seed cotton were collected simultaneously. The Triumph samples were taken from loads belonging to farmers who were well known as producers of this variety, while the other samples were taken indiscriminately and may include some Triumph cotton.

These collections were made between November 22 and January 19 and resulted in the accumulation of 27 Triumph and 28 other samples, a comparison of which is shown in Table XII. As the first part of the season was not covered, the average grade of both lots was below that of the season, but this fact does not affect the comparison during the period under consideration.

TABLE XII.—*Comparison between Triumph and other seed-cotton sales in Crowder, Okla.*

Varieties.	Number of loads sampled.	Approximate grade average.	Lint outturn.	Seed outturn.	Trash outturn.	Seed cotton price per 100 pounds.	Equivalent lint price per pound.
			Per cent.	*Per cent.*	*Per cent.*		*Cents.*
Triumph	27	L. M.	34.4	63.5	3.6	$3.67	9.52
Other	28	S. G. O.	33.1	64.2	4.2	3.13	8.23
Summary	55		33.7	63.9	3.9	3.39	8.86

Table XII shows that Triumph had a distinct advantage over the miscellaneous varieties commonly grown in this neighborhood. The quality is shown to be a full grade higher, which is probably explained by the fact that it was produced by more careful growers. The lint outturn was 1.3 per cent greater and the price paid for the unginned cotton 54 cents per hundred pounds more. The average prices paid for the unginned cotton were: For Triumph $3.67, and for other varieties $3.13 per hundred pounds, which, when converted to the equivalent baled lint prices, are 9.52 cents and 8.23 cents per pound, respectively, a difference in favor of Triumph of 1.29 cents per pound. After allowing 50 points for difference in grade, 0.79 cent per pound, or $3.95 per bale more was paid by the ginners for Triumph than for other cotton.

No statistics were obtained on prices paid for lint cotton in this immediate vicinity, but the prices paid for these 55 loads when expressed in equivalent baled-cotton prices show an average of 8.86 cents per pound for this cotton, about half of which was Triumph, carefully picked and handled. Comparing this average with the average lint price of 9.87 cents throughout the State during this period as determined by the survey of lint cotton sales, it is found that on each pound of cotton sold unginned in this market the growers sustained an average loss of 1.01 cents, and on each bale an average loss of $5.05. It is evident that the producers of this section, both as individuals and as a community, would profit by having their cotton custom ginned, thereby eliminating the various uncertain factors that exist when cotton is sold in the seed and reaping the benefit of the high percentage of outturn of lint and low percentage of trash, and the good character of their cotton. The activities in the interest of pure seed, improved culture, and careful picking should be extended to include the encouragement of custom ginning and a knowledge of the quality and value of cotton before marketing.

The facts brought out by the study of the situation at Crowder are published because it is believed that they are typical of conditions in many other localities where cotton is sold in the seed and where efforts to improve the product of the community are being made.

CONCLUSIONS.

The wide variations in the lint, seed, and trash proportions of seed cotton, together with the impracticability of determining accurately these percentages and the quality of the cotton before it is ginned, make it impossible for the ginner justly to discriminate between the value of individual loads. The uncertainties thus involved cause buyers to base their prices on the average outturns and average grades of the particular community and the current lint and seed prices.

This practice results in variations between the prices paid for the lint content of different loads of seed cotton. Wide differences in prices have been shown to exist between the lint content of loads in each market and between loads in the different markets investigated. Where lint and seed cotton are sold in the same market there is also an inequality between prices paid for lint cotton and for the lint content of seed cotton. In some instances, individual farmers have received more for their product in the seed than they would have received by selling in the bale; however, in most cases, and in the aggregate, a loss has been shown on each grade during each month and throughout the entire season by selling cotton in the seed.

Therefore this method of marketing cotton as a general practice, can not be condemned too strongly, and both the farmer and ginner are advised for the common good of all to encourage custom ginning, so that it may be possible to sell each bale on its merits.

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